Europäisches Patentamt

European Patent Office

Office européen des brevets



## (11) **EP 0 677 612 A3**

(12)

## **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3: 28.02.1996 Bulletin 1996/09

(51) Int Cl.6: **D21F 11/14**, D21F 11/00

(43) Date of publication A2: 18.10.1995 Bulletin 1995/42

(21) Application number: 95105513.6

(22) Date of filing: 12.04.1995

(84) Designated Contracting States: BE DE ES FR GB IT NL SE

(30) Priority: 12.04.1994 US 226630 06.02.1995 US 384304

(71) Applicant: KIMBERLY-CLARK CORPORATION Neenah, Wisconsin 54956 (US)

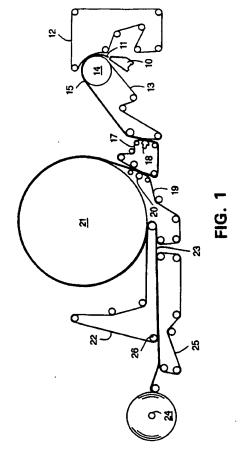
(72) Inventors:

 Wendt, Greg Arthur Neenah, WI 54956 (US)

- Farrington, Theodore Edwin, Jr. Appleton, WI 54915 (US)
- Chiu, Kai F.
   Brandon, Mississippi 39042 (US)
- Heaton, David Alan
   Woodstock, GA 30188 (US)
- Burazin, Mark Alan Appleton, WI 54915 (US)
- (74) Representative:
  DIEHL GLAESER HILTL & PARTNER
  D-80639 München (DE)

## (54) Method of making soft tissue products

(57) Throughdried tissue products such as facial tissue, bath tissue, and paper towels are made using a throughdrying fabric having from about 5 to about 300 machine direction impression knuckles per 6.45 cm² (1 square inch) which are raised above the plane of the fabric. These impression knuckles create corresponding protrusions in the throughdried sheet which impart a significant amount of cross-machine direction stretch to the sheet. In addition, other properties such as bulk, absorbent capacity, absorbent rate and flexibility are also improved.





## EUROPEAN SEARCH REPORT

Application Number EP 95 10 5513

	DOCUMENTS CONSID		NT	
Category	Citation of document with indi of relevant passi	cation, where appropriate, ages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (InLCL6)
A	US-A-4 440 597 (WELL) * the whole document		1,3,4,7	D21F11/14 D21F11/00
<b>A</b>	EP-A-O 342 646 (KIMB * the whole document	ERLY-CLARK) *	1,3	
	EP-A-0 109 307 (SCOT * the whole document	T PAPER COMPANY)	1,3	
	DE-A-24 27 291 (THE   * page 51, line 1 -	PROCTOR & GAMBLE CO.) page 52, line 30 *	1,3	
				TECHNICAL FIELDS SEARCHED (Int.Cl.6)
			i	D21F
	The present search report has been	n drawn up for all claims	-	
	Place of search	Date of completies of the search		Examiner
	THE HAGUE	22 December 199	5 De	Rijck, F
X: particularly relevant if taken alone E: earlier pate Y: particularly relevant if combined with another D: 4 ocument			d in the application I for other reasons	lished on, or